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(54) Downhole current generator

(57) A downhole current generator (34) generates power in a wellbore and includes a power section (36) and a generator section (38). The power section (36) has a sleeve (44) slidably disposed within a housing (42) which oscillates in response to the application of fluid pressure to the current generator (34). A piston (48) is slidably attached to the sleeve (44) and oscillates relative to the sleeve (44) and the housing (42). The piston (87) extends longitudinally into the generator section (38) and has a plurality of magnets (78) attached thereto which oscillate with the piston (48). Wire coil sections (82) are fixed relative to the housing of the generator section (38) and are positioned between the oscillating magnets (78) such that a current is induced in the wire coil sections (82) upon oscillation of the magnets (78).

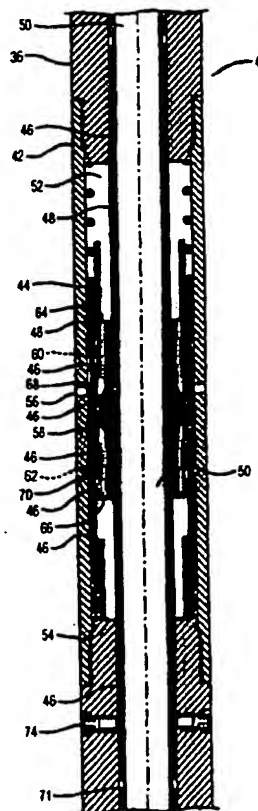


FIG. 2A

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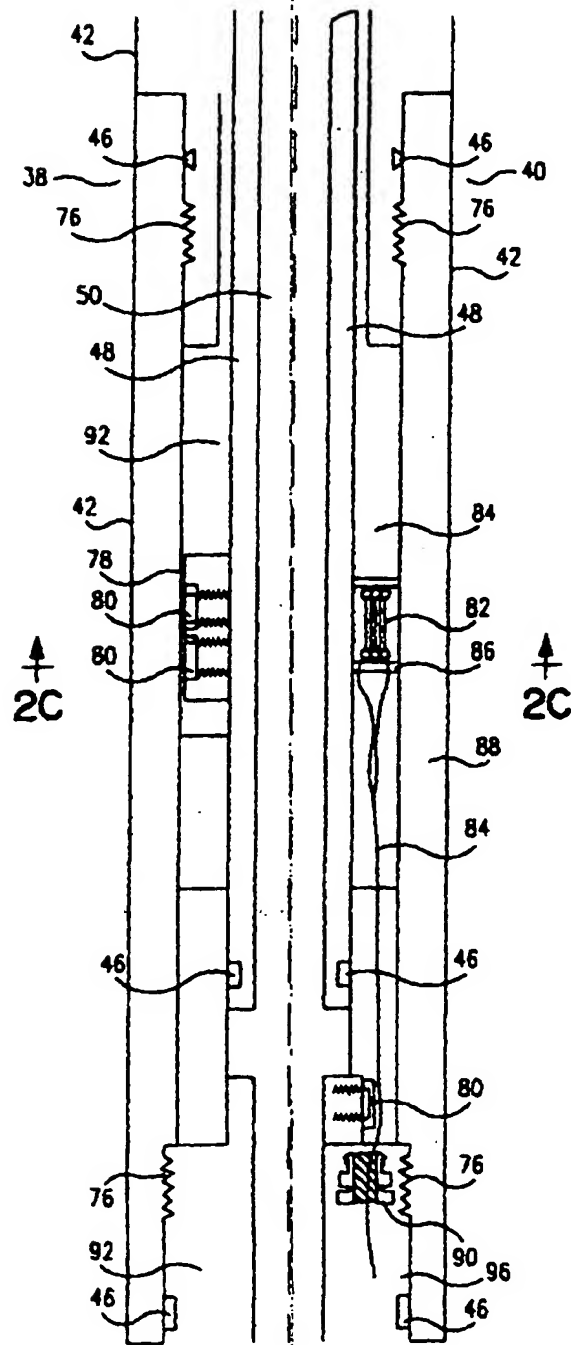


FIG. 2B



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EUROPEAN SEARCH REPORT

Application Number
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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (InCLIS)
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A	US 5 146 123 A (YARR GEORGE A) 8 September 1992 (1992-09-08) * abstract; figures 1,2,6-8 * * column 2, line 38 - column 3, line 38 *	7-9	
			TECHNICAL FIELDS SEARCHED (InCLIS)
			E21B H02K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 July 2001	Examiner Contreras Sampayo, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date U : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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